

EXHIBIT 101

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Plaintiffs' Co-Lead Class Counsel

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, SAN FRANCISCO DIVISION

AARON SENNE, et al., Individually and on
Behalf of All Those Similarly Situated,

Plaintiffs,

vs.

OFFICE OF THE COMMISSIONER OF BASEBALL,
an unincorporated association doing business
as MAJOR LEAGUE BASEBALL; et al.;

Defendants.

Case No. 3:14-cv-00608-JCS

CLASS ACTION

**EXPERT REBUTTAL REPORT OF ERICA L.
GROSHEN**

A. Background and Assignment

1. I have been asked by counsel for Plaintiffs and the class to review the Expert Report of Denise N. Martin, submitted on August 16, 2016 and prepare a rebuttal report in response to the points set forth in the report.
2. I earned a B.S. in Economics and Mathematics (dual major) from the University of Wisconsin-Madison and an M.A. and Ph.D. in Economics from Harvard University. My undergraduate and graduate education included coursework in labor economics, industrial organization, micro- and macroeconomics, as well as in statistical analysis.
3. I am currently the Senior Economic Advisor for the Cornell University School of Industrial and Labor Relations and have been employed there since 2017. I am also a Research Fellow for the Upjohn Institute for Employment Research. From 2013 to 2017, I served as the 14th Commissioner of the U.S. Bureau of Labor Statistics (BLS), a Presidential appointment with Senate confirmation. BLS is the principal federal agency responsible for measuring labor market activity, working conditions, and inflation. Prior to leading the BLS, I worked for 25 years in the Federal Reserve System, ending as a Vice President in the Research and Statistics Group of the Federal Reserve Bank of New York.
4. I am president-elect of the Business and Economics Section of the American Statistical Association. I also serve as co-editor of the *Harvard Data Science Review* and as a member of three high-level advisory committees: the Federal Economic Statistics Advisory Council, the National Academies of Science, Engineering and Medicine's Committee on National Statistics, and the American Economic Association's Committee on Economic Statistics. I received the 2017 Susan C. Eaton Outstanding Scholar-Practitioner Award from the Labor and Employment Relations Association and was appointed a Fellow of the American Statistical Association in 2020.
5. My research centers on employers' roles in labor market outcomes, including topics such as jobless recoveries, wage rigidity and dispersion, and the male-female wage gap. I am the lead author of "*Preparing U.S. Workers and Employers for an Autonomous Vehicle Future*," coedited *Improving Employment and Earnings in Twenty-First Century Labor Markets*, from RSF: The Russell Sage Foundation Journal of the Social Science, co-authored *How New is the "New Employment Contract"?* from W.E. Upjohn Institute Press and co-edited *Structural Changes in U.S. Labor Markets: Causes and Consequences*, from M.E. Sharpe, Inc.
6. A current copy of my CV is included as Attachment A.
7. During the past 10 years, I have published the following studies:
 - "Labor Market Trends and Outcomes: What Has Changed Since the Great Recession?" (with Harry J. Holzer), *ANNALS of the American Academy of Political*

and Social Science volume on “What Has Happened To The American Working Class Since The Great Recession?” 2021.

- “COVID-19’s Impact on the U.S. Labor Market as of September 2020,” Business Economics, vol. 55, no.4, October 2020.
- “Searching for STARS: Work Experience as a Job Market Signal for Workers Without Bachelor’s Degrees,” (with Peter Q. Blair, Tomas G. Castagnino, Papia Debroy, Byron Auguste, Shad Ahmed, Fernando García Díaz and Cristian Bonavida), National Bureau of Economic Research Working Paper 26844, March 2020.
- “Improving Employment and Earnings in Twenty-First Century Labor Markets: An Introduction,” (with Harry J. Holzer), RSF: The Russell Sage Foundation Journal of the Social Sciences, vol. 5, no. 5, December 2019.
- Preparing U.S. Workers and Employers for an Autonomous Vehicle Future, (with Susan Helper, John Paul MacDuffie and Charles Carson), Securing America’s Future Energy, Washington, D.C., June 2018.
- “Views on Advanced Economy Price- and Wage-setting From a Reformed Central Bank Researcher and National Statistician,” Price and Wage-Setting in Advanced Economies: Proceedings of the 2018 ECB Forum on Central Banking. European Central Bank, Frankfurt: Germany, 2018.
- “Importance of the U.S. Bureau of Labor Statistics and Critical Issues It Faces,” Business Economics, vol. 53, no. 2, April 2018.
- How Government Statistics Adjust for Potential Biases from Quality Change and New Goods in an Age of Digital Technologies: A View from the Trenches,” (with Brian C. Moyer, Ana M. Aizcorbe, Ralph Bradley and David Friedman), Journal of Economic Perspectives, vol. 28, no. 2, Spring 2017.
- “Opportunities and Challenges Facing the Bureau of Labor Statistics,” Business Economics, vol. 50, no. 2, April 2015.

8. I am being compensated for my work in this matter at a rate of \$850 per hour. My work, compensation, and opinions are not contingent on the outcome of this litigation.

B. Introduction and Summary

9. Dr. Martin's report includes opinion testimony regarding whether minor league baseball players are "trainees" and qualify as creative professionals. The first section of this report explores the evidence relating to whether minor league baseball players are trainees and the second considers whether they qualify as creative professionals.

10. Dr. Martin's analysis of minor leaguers as "trainees" fails to account for the economic realities of the labor market for minor league players as well as several aspects of their employment relationship with Major League Baseball ("MLB") and its member Clubs.

- Dr. Martin's analysis of minor league compensation depends on the underlying assumption that the labor market for minor league players is a normal, competitive market, but it is in fact far from competitive. Minor league baseball provides almost the only path possible to a major league career. Once players sign with a team, they cannot freely negotiate with or move to another team—and this restriction continues for 6-7 years after they move to the major leagues, if they do. This lack of outside opportunities for professional baseball players awards their employers far more market power than would be true in a competitive labor market. This has the characteristics of a "monopsonistic" or "oligopolistic" labor market.¹ In such a market, the employer can pay its workers lower compensation than if it were in a competitive market.
- A worker's willingness to work in a monopsonistic market does not indicate that this is an optimal outcome or make them more likely to be trainees. The minor league players' options are highly constrained; their choice set is severely limited. One role of minimum wages is to limit the ability of monopsonistic employers to suppress wages below a certain rate, even if some workers would accept it. As a corollary, that baseball compensation has features of tournaments is not germane. Other employers that have tournament-style compensation are required to pay minimum wages to all their workers.
- That minor leaguers receive employer-provided training and fringe benefits is not unique. Most U.S. employers provide training and must pay minimum wages, no matter how much training they provide. Instead of a high amount of training leading to low wages, Defendants' practices more likely reflect a monopsonistic employer providing training to raise the productivity of workers who cannot change employers freely. For example, the Defendants' "training program" would not qualify as a formal apprenticeship, because it lacks key features beneficial to employees, such as paying at least a minimum wage, being time-delimited and/or culminating in a credential, and

¹ Economics calls a market dominated by a single *buyer* a "monopsony." The market for minor league baseball players has monopsonistic characteristics because minor league baseball teams are the only realistic path to a MLB roster. If you consider the Clubs to be separate entities that act largely in collusion, you would call the market "oligopsonistic." In this case, the implications are the same, so I use the simpler term, monopsonistic.

having a high probability of leading directly to a promotion to a major league player. Also, Dr. Martin's measure of the amount of job training is an overestimate because it erroneously classified as job training activities that are normal for all professional baseball players. Regarding the non-training fringe benefits provided by Defendants, these are not unusual, lavish, nor normally associated with lower wages. In effect, Dr. Martin and Defendants seek an exemption from minimum wage and overtime based on normal job-related activities and benefits that could be applied to numerous professions.

- Finally, an implicit, but critical assumption underlying Dr. Martin's analysis is that minor league players are not productive enough to be paid the minimum wage plus their training costs. This is contradicted by indications of high value attached to minor league play, such as revenues received for minor league games, that teams trade minor league players (for money and major league players), and the value of successful minor league players to the major league Clubs. Importantly, players who might never reach the major leagues contribute to the profitability of Defendants through option value and means such as helping to hone, develop, and identify the skills of future major league players.

11. Dr. Martin's analysis of whether minor league players may qualify as creative professionals rests on documenting differences in performance among players and interpreting the wide dispersion in their performance as reflecting variation in their creative abilities. I disagree with her analysis for several reasons.

- Dr. Martin's statement implicitly and erroneously uses the word "talent" as a synonym for creativity. Professional baseball players are talented and their performance varies, but there are many types of talent other than creativity. Furthermore, some use of creativity in a profession does not make a job predominately creative. Under Dr. Martin's usage, many skilled workers could be called a creative professional. Hence, the performance dispersion among baseball players likely provides no information about the need for creativity, *per se*, in baseball. The performance dispersion seen reflects the distribution of any attribute or ability in short supply rather than distinctly signaling a need for creativity.
- Authoritative official analysis of the abilities required by professional athletes does not align with their inclusion as creative professionals. Regulatory guidance does not list professional athletes as creative professionals; nor do the criteria advanced in that guidance support such inclusion. Professional athletes' classification in the federal Standard Occupational Classification (SOC) system allows comparisons with occupations commonly considered creative and they are not classified in the same category. The Bureau of Labor Statistics Occupational Outlook Handbook does not list creativity as a key quality needed by professional athletes, while it does for six of seven occupations

more commonly considered creative. The Department of Labor's Occupational Information Network (O*NET) data on ability requirements scores athletes notably lower than those seven creative occupations on the need for two attributes associated with creativity (originality and fluency of ideas--that is, the ability to come up with many ideas to address topics).

12. In my professional opinion, Dr. Martin's analysis does not provide support for these exemptions from minimum wage and overtime. The work performed by minor leaguers and their relationship to MLB and its member Clubs has the qualities and characteristics of a traditional employment relationship as defined in the field of labor economics. By Dr. Martin's reasoning, numerous occupations would potentially no longer qualify for the protections of minimum wage, overtime, and other employment laws. The first section of this paper explores the evidence on whether minor league baseball players are trainees and the second considers whether they fit well into the category of creative professionals.

C. Dr. Martin's Report Does Not Support the Classification of Minor Leaguers as Non-Employee Trainees.

13. Dr. Martin was "asked to evaluate, using principles from labor economics, the benefits that plaintiffs have received from their participation in the minor leagues and, where possible, to quantify those benefits."² To evaluate economic outcomes (such as wages and benefits) for a set of workers, it is important to identify the nature of the labor market that produces those outcomes. Dr. Martin argues that one reason that minor league players are not paid minimum wages is that they receive substantial benefits from being trainees, and she assumes that they operate in a competitive labor market. This section examines both parts of Dr. Martin's assertion, starting with the nature of the labor market for minor league players and then turning to their potential status as trainees.

i. Dr. Martin's Analysis Fails to Account for the Monopsonistic Characteristics of the Minor League Baseball Employment Market.

14. The model of the perfectly competitive labor market assumes that employees have a free and costless choice among a large number of employers for whom they might work. In such a market, workers' earnings equal their productivity (called marginal product in the literature), so a low wage would be evidence of a worker's low productivity. Applied to minor league baseball players, this would imply that their low earnings reflect low productivity and/or high compensation in the form of non-wage benefits. The assumption of competitive markets underlies Dr. Martin's evaluation conclusions that minor league players receive "substantial economic benefits"³ and "each plaintiff's decision to participate in the minor leagues is

² See Dr. Martin's Report, paragraph 9.

³ See Dr. Martin's Report, paragraph 11.

objective evidence that he valued the training, experience and opportunities provided by that participation.”⁴

15. However, Dr. Martin’s assumption of a competitive market does not reflect or account for the economic realities of the minor league baseball labor market. Instead, an alternative analysis that accounts for the players’ uniquely constrained labor market options is more appropriate for minor league players. The exemption of Major League Baseball from antitrust legislation grants MLB the exclusive right to operate as a monopoly.⁵ Their monopoly also allows MLB to exercise strong control over the labor market for professional baseball players in the U.S. Thus, MLB can impose market rules that are not found in competitive labor markets. Most players must take a minor league job with Defendants if they want to play in the major leagues, a reality Dr. Martin acknowledges. (See Martin Depo. at p. 31-32.) After being drafted and signing with a team, players cannot freely move to another team.⁶ They must stay with the MLB Club that selected them if they want a pathway to the major leagues. Furthermore, if and when they are promoted to the major leagues, they have no voluntary mobility for 6-7 years. During that time, their earnings are capped for the first 3-4 years and may be arbitrated for the next 3-4 years.⁷

16. In economics jargon, a market dominated by a single *buyer* is called a “monopsony.”⁸ Monopsony is the counterpart to the better-known term, monopoly, which is a market dominated by one *seller* (such as major league baseball, which has a monopoly on producing professional major league baseball games). The market for minor league baseball players has monopsonistic characteristics, because minor league baseball is the only realistic path to a MLB roster.

17. When employers have monopsonistic power, many inferences appropriate in perfectly competitive labor markets do not hold. A major difference is that monopsonistic wages will be lower than in competitive markets, but that does not signal low productivity. A review of the prevalence and implications of monopsony in modern labor markets appears in V. Bhaskar, Alan

⁴ See Dr. Martin’s Report, paragraph 13.

⁵ See *Federal Baseball Club of Baltimore, Inc. v. National League of Professional Baseball Clubs*, 259 U.S. 200 (1922).

⁶ See UPC, section VI.

⁷For service time rules, see <https://www.mlb.com/glossary/transactions/service-time>. For a discussion of far-reaching implications of this control, see Felder, Adam. “How MLB Keeps its Players’ Salaries Down,” *The Atlantic*, December 2015. <https://www.theatlantic.com/business/archive/2015/12/mlb-salaries-labor-contract-negotiations/419889/>. See also <https://www.mlb.com/glossary/transactions/salary-arbitration>.

⁸Joan Robinson developed the economics of monopsonies first in *The Economics of Imperfect Competition* (1933). A later version of her book is Robinson, Joan (1969). *The Economics of Imperfect Competition*. doi:10.1007/978-1-349-15320-6. ISBN 978-0-333-10289-3.

Manning and Ted To (2002).⁹ They focus in particular on markets where employers have some, but incomplete, market power. They say:

The question of whether a labor market is “imperfectly competitive” is often equated with the question of whether an employer is a monopsony in the traditional sense—that is, the sole employer in a labor market. *Traditional monopsony is clearly unrealistic, since employers obviously compete with one another to some extent. But there are a range of choices between perfect competition and monopsony where a degree of market power coexists with competition between employers.* It is best to think in terms of “oligopsony” or “monopsonistic competition” as the most accurate descriptions of the labor market we envisage. Oligopsony describes a situation where employer market power persists despite competition with other employers—the number of employers does not need to be small. Monopsonistic competition is oligopsony with free entry, so that employer profits are driven to zero. [Italics added.]¹⁰

18. Minor league baseball is not a pure classical monopsony because baseball players have the option of leaving the minor leagues for a professional baseball job abroad or a non-baseball job in the U.S. Yet Defendants certainly have an unusual amount of labor market power in minor league baseball. Thus, the professional minor league baseball labor market has monopsonistic or oligopsonistic characteristics—the latter if you consider the Clubs to be separate entities acting largely in collusion. For simplicity, I use the term monopsonistic in this discussion, since the economic implications are the same for monopsony and oligopsony in this case.

19. Bhaskar et al. also discuss how employer market power arises.¹¹ As noted above, the exemption of Major League Baseball from antitrust legislation effectively grants them considerable monopsony power.

20. Economic theory predicts that the compensation paid by a monopsonistic employer will be lower than if they had more competition. In a competitive labor market, an employer who offers wages lower than their workers’ productivity will not be able to hire any workers, because other employers will offer more. A monopsonistic employer has much less competition

⁹ See V. Bhaskar, Alan Manning and Ted To. “Oligopsony and Monopsonistic Competition in Labor Markets”. *Journal of Economic Perspectives*—Volume 16, Number 2—Spring 2002—Pages 155–174. <https://www.aeaweb.org/articles?id=10.1257/0895330027300>.

¹⁰ Page 155-156 of Bhaskar et al. (2002).

¹¹ *Id.*

for workers, so it can hire workers even when it pays them less than they produce. The logic is that while the monopsonist's low wage will fail to attract some workers into their labor market, the profit they make from the many workers they *can* hire is high enough to compensate for the smaller workforce.¹²

21. Monopsonistic employers will provide more training to their workers than competitive employers. This is because a monopsonist's power to retain workers means they are more certain to garner the benefits from that training down the road. This is true in this case. Their contracts obligate minor leaguers to continue performing services for the Club that drafted them for an extended time at both the minor league and major league level.¹³

22. A third relevant implication is that introducing or raising a minimum wage in a monopsonistic market can increase workers' wages and employment. This is very different from the prediction in a competitive labor market, where any minimum wage increase that raises wages will cause some job losses. The job loss comes because profit margins are typically low in a competitive market. Thus, some employers will need to raise prices, lowering quantities demanded of their products. In consequence, some companies will shrink or fail, eliminating some jobs. By contrast, a monopsonistic employer required to raise wages will attract more workers, each of whom is profitable. They need not raise prices because they have sufficient profit margins. In response to a modestly higher minimum wage, the total profit made by the monopsonist will be lower. Even so, they remain profitable and add workers.¹⁴

23. Economists' attention to monopsonies has grown recently, partly because a body of research finds no job loss from minimum wage increases.¹⁵ This result is difficult to explain without reference to employer power. It suggests (along with other evidence presented by Bhakar et al. (2002)) the presence of monopsonistic characteristics in many U.S. labor markets. Indeed, a key rationale often given for setting a minimum wage is to place some constraints on employers of low-wage workers who dominate particular labor markets. For example, the International Labour Organization states, "The purpose of minimum wages is to protect workers against unduly low pay. They help ensure a just and equitable share of the fruits of

¹² This is the counterpart to why a monopolist charges a higher price than we would see in a competitive market. While its sales and production volume will be lower, it makes more on each item sold, so its profits are higher.

¹³ See UPC, section VI; Felder, Adam. "How MLB Keeps its Players' Salaries Down," *The Atlantic*, December 2015. <https://www.theatlantic.com/business/archive/2015/12/mlb-salaries-labor-contract-negotiations/419889/>.

¹⁴ Not surprisingly, there are bounds for this effect. Raising a minimum wage too high could force a monopsonist to raise prices and shrink employment. The emphasis here is on modest increases.

¹⁵ See Card, David, and Alan B. Krueger. 1995. Myth and Measurement: The New Economics of the Minimum Wage. Princeton: Princeton University Press. Also see discussion and references in Manning, Alan. 2021. "The Elusive Employment Effect of the Minimum Wage." *Journal of Economic Perspectives*, 35 (1): 3-26. DOI: 10.1257/jep.35.1.3 <https://pubs.aeaweb.org/doi/pdf/10.1257/jep.35.1.3> and NYT Peter Coy, "A min wage can increase jobs" NYT 8/16/2021: <https://www.nytimes.com/2021/08/16/opinion/minimum-wage-jobs.html?searchResultPosition=1>.

progress to all, and a minimum living wage to all who are employed and in need of such protection.”¹⁶ From this perspective, excluding minor league players from minimum wage coverage leaves them vulnerable to an employer with particularly strong market power, therefore evading a key goal of setting a minimum wage.

24. In this context, a player’s willingness to work for Defendants does not constitute proof that his compensation is “substantial” or maximizes his welfare or social welfare, as it would in a competitive market. Instead, the outcome we observe is the consequence of Defendants’ market power and the rules it has imposed. These rules constrain both opportunities and wages.

25. The goal of minimum wage legislation is to prevent wages from falling below a certain rate even if some workers would accept it. There are many reasons why workers vary in what they will accept, such as their assessment of their talent, alternative options, family demands and resources, and so on. Therefore, I disagree with Dr. Martin to the extent she claims that the mere fact that the players are not paid (during certain work periods) establishes that or supports the claim that they are trainees rather than employees. (Martin Depo. p. 45).

26. Furthermore, the tournament nature of baseball compensation is not germane. I do not find this relevant to the issue of whether the players can be paid a minimum wage. High rewards for winners of tournaments need not require that other contestants earn nothing at all. Other employers that have tournament-style compensation can and do pay above-minimum wages to their workers at all levels. Examples include many legal firms, financial firms, and high-tech firms. Dr. Martin herself admits that tournament-style compensation is not unique to baseball and that employees as well as trainees might participate in such a structure. (See Martin Depo. at p. 82-84).

27. The impact of the market rules can be far-reaching. Were U.S. law firms to jointly impose rules similar to what Defendants impose on minor league players for attorneys, junior lawyers who wanted to stay in the profession would be unable to quit their first job to join another firm while serving as associates. Then, if they made partner, they would be bound to serve their first firm at a capped salary for 6-7 years—although they could be traded to another firm at the firms’ sole discretion. Furthermore, if they did not make partner at their first firm, they would most likely have to leave the profession. Similarly, were this approach adopted by physicians’ employers, a medical resident at a hospital would be required to serve in that hospital for 6-7 years after training was over—or leave the profession. Finally, the young lawyers or doctors might not earn the minimum wage. The argument that Dr. Martin is making

¹⁶ https://www.ilo.org/global/topics/wages/minimum-wages/definition/WCMS_439072/lang--en/index.htm. The International Labour Organization (ILO) is a tripartite United Nations agency, founded in 1919. The ILO brings together governments, employers and workers of member states, to set labor standards, develop policies and devise programs promoting decent work for all.

does not support the elimination of minimum wage and overtime benefits in these professions any more than it does for minor league baseball players.

ii. Dr. Martin's Characterization of Minor Leaguers as Trainees Does Not Comport With Labor Economics Principles

28. As demonstrated, Dr. Martin's report begins with a foundational problem because it wrongly assumes that the labor market for minor league baseball players is competitive. Beyond that initial problem, Dr. Martin also argues that minor league players are trainees, not productive employees. Being a "trainee" is undefined in any formal sense, so it is important to consider carefully what this means.

29. To begin with, receiving any sort of training from one's employer is not grounds for labeling an employee as a trainee. Employer-provided training is common and does not ordinarily relieve employers of their responsibility to pay minimum wages. Many other workers receive substantial training from their current employers. The 1995 Survey of Employer Provided Training (SEPT) conducted by the U.S. Bureau of Labor Statistics is the most recent and authoritative source of data on employer-provided training.¹⁷

30. BLS breaks such training into two types, as follows:¹⁸

- **"Formal Training:** Training that has a structured, formal, and defined curriculum; it may be conducted by supervisors, company training centers, businesses, schools, associations, or others. Formal training includes classroom work, seminars, lectures, workshops, and audio-visual presentations.
- **"Informal Training:** Training that is unstructured, unplanned, and easily adapted to situations or individuals. Examples include having a co-worker show you how to use a piece of equipment or having a supervisor teach you a skill related to your job."

31. This table presents high-level findings from the employee portion of the survey.¹⁹

Table 1: Prevalence of Employer-Provided Training in the U.S., 1995

	Formal training		Informal training
	While with their current employer	Within the last 12 months	Within the last 12 months
Percent of workers who received training in 1995	84.4%	69.8%	95.8%

¹⁷ This is the most recent authoritative source available. Congress has not funded an update of the survey since then. For information about the survey and data, see <https://www.bls.gov/ept/>.

¹⁸ See <https://www.bls.gov/ept/overview.htm>.

¹⁹ See <https://www.bls.gov/news.release/sept.nws.htm>, <https://www.bls.gov/news.release/sept.toc.htm>, and <https://www.bls.gov/news.release/sept1.toc.htm>.

Average hours of training per employee, May-October 1995	44.5%	13.4%	31.1%
Source: U.S. Bureau of Labor Statistics Survey of Employer-Provided Training 1995. https://www.bls.gov/news.release/sept.nws.htm https://www.bls.gov/news.release/sept.toc.htm https://www.bls.gov/news.release/sept1.toc.htm .			

32. As seen above, almost 96% of U.S. workers received informal training within the last twelve months from their current employers, and over 84% had received formal training. As of 1995, the prevailing trend was to increase training, or at least keep it stable.²⁰ Some private organizations have attempted to produce updated information, but cannot achieve very large or representative samples. Their findings do suggest, however, that it is unlikely that the overall incidence of employer-provided training has dropped precipitously.²¹

33. The SEPT also collected information from employers on per-employee training costs during the May-October 1995 period.²² The costs have two components: selected nonwage expenditures (such as tuition and paid trainers) and the wages and salaries of workers while they are in training. The table below presents the findings, annualized and adjusted for inflation since mid-1995. It shows costs both for all employers with over 50 employees and for large employers (with over 500 employees). All told, the SEPT findings show that employers annually spend an average of \$3,408 per employee, and the large ones spend \$4,366.

Table 2: Annual per Employee Costs of Employer-Provided Training in the U.S. in July 2021
Dollars

	Employers with 50 or more employees	Employers with 500 or more employees
Selected nonwage expenditures	\$1,092	\$1,668

²⁰ The 1995 SEPT survey found that 65.0% of employers reported that they had increased training efforts over the past three years, 31.6% reported no change, and 3.4% had a decrease. (See <https://www.bls.gov/news.release/sept1.t13.htm>.)

²¹ For example, The Society for Human Resource Management reports that a 2015 Glassdoor survey found that “Sixty-six percent of men said they have received on-the-job training in the past 12 months.” See <https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/workers-receive-more-job-training.aspx>.

²² See <https://www.bls.gov/news.release/sept1.t06.htm> for data on selected nonwage expenditures. These expenses include tuition reimbursements, wages and salaries of in-house trainers, payments to outside trainers, contributions to outside training funds, and subsidies for training received from outside sources. See <https://www.bls.gov/news.release/sept.t11.htm> for data on wage and salary costs for employee time during their employer-provided training.

Wages and salaries of employers while in training	\$2,316	\$2,698
Total	\$3,408	\$4,366

Source: U.S. Bureau of Labor Statistics Survey of Employer-Provided Training 1995.

- <https://www.bls.gov/news.release/sept1.t06.htm> for selected nonwage expenditures, including tuition reimbursements, wages and salaries of in-house trainers, payments to outside trainers, contributions to outside training funds, and subsidies for training received from outside sources.
- <https://www.bls.gov/news.release/sept.t11.htm> for wage and salary costs for employee time during their employer-provided training.

Note: Reported costs are annualized by multiplying by 2 to increase the period from 6 months to one year. Costs are adjusted for inflation since 1995 by multiplying by a factor of 1.79, taken from the BLS Inflation Calculator (https://www.bls.gov/data/inflation_calculator.htm).

34. Thus, employers devote considerable resources to training their employees. Virtually all of these workers, including formal apprentices, earned at least the minimum wage.²³

35. The SEPT report also states:²⁴

“Among those employees who received formal training while working for their current employer, about 14 percent indicated that they received a promotion when the training was satisfactorily completed or soon thereafter, and 19 percent received a higher rate of pay or bonus. Less than one percent of trained employees indicated that they received no benefits from their formal training. The most commonly cited benefit was that

²³ The Department of Labor estimates that 143 million U.S. workers were covered by the FLSA in 2009 (<https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/whdfs14.pdf>). U.S. civilian employment that year was estimated by BLS at 140 million (<https://www.bls.gov/cps/cpsaat01.pdf>)—implying 98% FLSA and minimum wage coverage among employed U.S. workers. The SEPT sample was representative of most employers in the U.S., so the surveyed workers can be expected to have similar coverage. Technical notes for the SEPT release (<https://www.bls.gov/news.release/History/sept1.txt>) state “The data presented in this report represent the universe of private establishments in the 50 States and the District of Columbia that had 50 or more employees during the fourth quarter of 1993 and were classifiable into one of the following two-digit Standard Industrial Classifications (SIC) based on the 1987 Standard Industrial Classification Manual: Mining (SIC 10, 12 – 14); Construction (SIC 15 – 17); Nondurable Manufacturing (SIC 20 - 23, 26 – 31); Durable Manufacturing (SIC 24, 25, 32 – 39); Transportation and Public Utilities (SIC 41, 42, 44 – 49); Wholesale Trade (SIC 50, 51); Retail Trade (SIC 52 – 59); Finance, Insurance and Real Estate (SIC 60 - 65, 67); Services (SIC 07, 70, 72, 73, 75, 76, 78 - 84, 86, 87, 89).”

²⁴ U.S. Bureau of Labor Statistics Survey of Employer-Provided Training 1995. Source of quote: <https://www.bls.gov/news.release/History/sept.txt>, with reference to this table 9 of the report (<https://www.bls.gov/news.release/sept.t09.htm>).

employees ‘learned a valuable skill that improved their job performance,’ chosen by 78 percent of trainees.”

36. The prevalence of training across this wide spectrum of professions demonstrates that applying an exclusion from minimum wage on grounds that they receive training would have broad, far-reaching implications. Thus, unless almost all workers are trainees, simply receiving training from one’s employer that improves one’s career prospects does not make an employee a trainee.

37. Another factor to consider is whether the minor league player relationship would qualify as an apprenticeship program. The Defendants could, after all, decide to try to register their players as apprentices. Apprenticeship programs are well-regarded, varied, and mostly target workers without a college degree. The U.S. Department of Labor’s Employment and Training Administration has an office that administers apprenticeships.²⁵ Their fact sheet on apprentices states the following:²⁶

Apprenticeship is an industry-driven, high-quality career pathway where employers can develop and prepare their future workforce, and individuals can obtain paid work experience, classroom instruction, and a nationally-recognized, portable credential. Employers can choose to register their programs with the U.S. Department of Labor (DOL) to show prospective job seekers that their apprenticeship program meets national quality standards.”

There are five key components of an apprenticeship. These components differentiate apprenticeships from other types of workplace training in several ways:

- PAID JOB Apprenticeships are jobs! Apprentices earn a competitive wage from their employers during training.
- MENTORSHIP Apprentices receive on-the-job learning under the instruction of an experienced mentor.
- CREDENTIALS Apprentices earn a portable, nationally-recognized credential within their industry.
- WORK-BASED LEARNING Programs provide structured on-the-job learning to prepare for a successful career.

²⁵ See <https://www.dol.gov/agencies/eta/apprenticeship> for more information.

²⁶ See https://www.apprenticeship.gov/sites/default/files/Apprenticeship_Fact_Sheet.pdf.

- CLASSROOM LEARNING Apprentices are provided classroom instruction on the critical aspects of their careers.

38. Elsewhere, the fact sheet notes that “94% of apprentices who complete an apprenticeship program retain employment.” A recent BLS article provides further detail about apprenticeships.²⁷ For example, formal apprenticeships usually pay about half as much as fully qualified jobs, which are mostly highly compensated, and are covered by minimum wage regulations. Apprentices earn pay increases as they advance in their training. Apprenticeships also have a set duration, usually lasting 1-4 years, with the longest at 6 years. Furthermore, apprentices are free to negotiate with and leave to join other employers in the same field at any time.

39. These criteria make it clear that playing minor league baseball is not like being an apprentice in at least the following ways.

- Minor league players are not consistently considered employees by Defendants.
- Minor league players do not earn a portable national credential.
- Less than 20% of minor league players are promoted to MLB, far below the 94% rate of being retained in employment for apprentices.²⁸ Dr. Martin notes that many former minor league players take jobs as coaches or managers, or even in sales.²⁹ This outcome is clearly not the same as being retained in MLB, which is what minor league players are training for according to Dr. Martin, so it would not qualify as a successful apprenticeship.
- Minor league engagements are of uncertain length instead of the fixed duration of most apprenticeships.
- One other element (not mentioned on the Department of Labor’s list): minor league players have mobility restrictions. In apprenticeships, starting with one employer does

²⁷ See Elka Torpey. “Apprenticeships: Outlook and wages in selected occupations,” (updated by Ryan Farrell) | November 2019, <https://www.bls.gov/careeroutlook/2019/article/apprenticeships-outlook-wages-update.htm>.

²⁸ See <https://www.baseballamerica.com/stories/how-many-mlb-draftees-make-it-to-the-majors/>. Also, Dr. Martin notes: “A 2012 Bleacher Report included statistics on the probability of being called up to a Major League Club depending on the round of the minor league draft in which the player had been picked. Specifically, it reported a probability of playing for a Major League Club at 66% for first-round minor league picks; 49% for second-round picks; 32% for rounds three to five; 20% for rounds six to 10; 11% for rounds 11-20; and 7% for rounds 21-40. <https://bleacherreport.com/articles/1219356-examining-the-percentage-of-mlb-draft-picks-that-reach-the-major-leagues#slide7>. If all picks are signed, this translates into an average probability of 14% reaching the majors and 86% never doing so. A higher probability of never graduating (90%) is reported in the following statement: “Of all minor league players only 10 % will ever make it to the show.”--in Sorenson, Nathan. *Desert News*, May 15, 2015. <https://www.deseret.com/2015/5/15/20564881/minor-league-ballplayers-path-to-the-bigs-has-major-obstacles-so-family-is-no-small-thing#frank-herrmann-relief-pitcher-for-the-salt-lake-bees-looks-to-home-plate-in-a-recent-game-at-smiths-ballpark-in-salt-lake-city>. Note also that some players who are called up to the major leagues are returned to the minor leagues after only a short time.

²⁹ See Dr. Martin’s Testimony, paragraphs 35-37.

not preclude a worker from negotiating with or switching to another employer in the same industry, should they be so inclined.

40. Moreover, much of what Dr. Martin lists as “training” is actually better characterized as simply part of the job. Her included “training” activities include attending spring training, maintaining conditioning, and practicing skills under the direction of coaches, as well as playing for and playing in baseball games. (See Martin Depo. at p. 35-36 & 42.) Indeed, Dr. Martin testified that she considers all of the work performed by minor leaguers to be “training.” *Id.* However, not all of this training is job training in the traditional sense; in fact, most of these activities are typical of highly-paid major league baseball players, regardless of the stage of their career, and similar to activities performed by all professional athletes. Indeed, major league spring training is longer by about two or three weeks (i.e., by around 50%) than minor league spring training, counter to what you would expect if spring training were about job training.³⁰ Dr. Martin did not consider whether the activities she classifies as training are also performed by MLB players. (*Id.* at 42-43.)

41. Dr. Martin also misapplies the term training by asserting that “it’s investment in human capital...[to] give yourself a higher expected payoff in the future.” (Martin Depo. at p. 36). A definition this broad, if accepted, could apply to any position in which there is a possibility for advancement. In short, Dr. Martin’s misapplication of the term training, results in misclassification of the routine work performed by professional baseball players, resulting in a substantial overstatement of training performed by minor leaguers.

42. Even though the amount of job training is exaggerated, it is certainly not negligible. In a competitive market, this training might be seen as an economic rationale for paying lower, trainee wages.³¹ However, in a monopsonistic market, the logic is quite different. Monopsonistic employers are expected to supply more training to workers than competitive employers precisely as a consequence of their ability to pay low wages and retain their workers. This follows because a monopsony’s workers have less incentive to pay for training themselves and the employer can expect to capture more of the returns to that training than they can in a competitive market, where workers can quit in order to earn more elsewhere. Thus, training received by minor league players is insufficient to make the case that minor league players qualify as trainees.

43. Dr. Martin also implies that the players are paid less partly because they receive fringe benefits, such as health care insurance.³² Fringe benefits are not unusual. Dr. Martin’s statement fails to compare minor league players’ total benefits to those received by other

³⁰ According to one MLB doc, Minor League spring training “usually begins about three weeks after Major League spring training” and “lasts approximately four weeks.” MLB0008914, at p. 14.

³¹ See Dr. Martin’s Report, paragraphs 17 and 28.

³² See Dr. Martin’s Report, paragraphs 25-27.

workers. The U.S. Bureau of Labor Statistics reports that through their jobs, 72% of workers in 2020 had access to medical care benefits, 71% had access to retirement plans, 60% had access to life insurance benefits, and 78% had access to sick leave benefits.³³ BLS also produces hourly estimates for employer costs for fringe benefits. These are summarized below, with the fulltime 5-month (the duration of MLB play) and annual costs implied by the hourly rates. The table also presents health insurance costs per hour and per month. The monthly rate is included to be comparable to Dr. Martin's estimates of the value of health care benefits (\$233 in Florida and \$229 in Virginia, presumably monthly premiums). By any comparison with the median MiLB employee benefits do not appear lavish.

Table 3: Employer Costs for Employee Compensation by Wage Percentiles for Private Industry Workers (1), March 2021

	10th wage percentile	50th (median) wage percentile	90th wage percentile
Total compensation per hour (2)	\$ 13.46	\$ 26.88	\$ 71.99
Wages and salaries per hour	\$ 10.94	\$ 18.91	\$ 48.92
Total benefits cost per hour (3)	\$ 2.52	\$ 7.97	\$ 23.07
Health insurance costs per hour	\$ 0.66	\$ 2.45	\$ 5.22
Benefits as a % of total compensation	19%	30%	32%
Benefits costs for 5 months (4)	\$ 2,167	\$ 6,854	\$ 19,840
Benefits costs for 12 months (5)	\$ 5,242	\$ 16,578	\$ 47,986
Health insurance costs for 1 month (6)	\$ 134	\$ 421	\$ 898
<p>Source: U.S. Bureau of Labor Statistics Employer Costs for Employee Compensation, March 2021. https://www.bls.gov/news.release/ecec.nr0.htm and author's calculations.</p> <p>Notes:</p> <p>(1) Includes workers in the private nonfarm economy except those in private households.</p> <p>(2) Includes costs for wages, salaries, and benefits.</p> <p>(3) Includes costs for paid leave, supplemental pay, insurance (including health insurance), retirement and savings, and legally required benefits.</p> <p>(4) Multiplies hourly rate by 860 hours.</p> <p>(5) Multiplies hourly rate by 2,080 hours.</p> <p>(6) Multiplies hourly rate by 172 hours.</p>			

³³ See <https://www.bls.gov/charts/employee-benefits/percent-access-benefits-by-work-status.htm>, <https://www.bls.gov/news.release/ebs2.nr0.htm>, and <https://www.bls.gov/ncs/ebs/benefits/2020/>.

44. A primary problem with Dr. Martin's argument is that virtually all the workers who receive these fringe benefits are consistently considered employees by their employer and subject to minimum wage rules. Thus, they receive fringe benefits *in addition* to wages, not *instead of* wages. Indeed, better fringe benefits are normally associated with *higher* overall compensation, not *lower* compensation—counter to what is happening with MiLB. For example, in March 2021, private sector workers in the bottom 10% of the wage distribution received \$2.52 per hour in fringe benefits (18% of their total compensation) while workers in the top 90% received \$23.07 per hour in fringe benefits (32% of their total compensation).³⁴

45. Another framing of the same issue is that the concept of compensating differentials in wages that Dr. Martin invokes does not operate very strongly generally and particularly with respect to wages and fringe benefits or other work amenities.³⁵ We can see no effect of equalizing differences for non-wage benefits in these statistics. My own research on this topic makes clear that the lack of a visible trade-off is not rare or new. I published a paper with statistical evidence on large wage differences among employers in the prestigious peer-reviewed *Quarterly Journal of Economics* in 1991. In the paper, I note the following: "Most studies of compensating differentials attempt to explain industry wage variation and are largely unsuccessful."³⁶ Another of my papers reviews the theory and empirical evidence on wage differences among employers and states "Empirical studies of compensating differentials have been notably unsuccessful in finding evidence of their contribution to wage dispersion [among employers]".³⁷ Recent studies continue to find little statistical evidence of compensating differentials. One particularly relevant 2009 paper in the *Journal of Applied Econometrics* is entitled "The Pervasive Absence of Compensating Differentials." The authors survey other studies and analyze data on wages, fringe benefits, and working conditions from eight countries. They conclude as follows:

We find strong preferences for amenities, especially job security, yet, **these preferences do not translate into significant wage differentials** in cross-section. Counterfactual experiments show

³⁴ See U. S. Bureau of Labor Statistics Employer Costs for Employee Compensation, March 2021, Table A: Employer Costs for Employee Compensation by wage percentiles in <https://www.bls.gov/news.release/ecec.nr0.htm>.

³⁵ One working condition that does seem to reflect compensating differentials is risk of injury or death. Workers in very dangerous jobs usually earn more than workers in similar jobs with lower risks. See for example, Biddle, Jeff E. and Gary A. Zarkin. (1988). "Worker preference and market compensation for job risk." *Review of Economics and Statistics*. 70 (4): 660–667. doi:10.2307/1935830. JSTOR 1935830.

³⁶ Groshen, Erica L. "Sources of Intra-Industry Wage Dispersion: How Much Do Employers Matter?", *The Quarterly Journal of Economics*, Volume 106, Issue 3, August 1991, Pages 869–884.

³⁷ Groshen, Erica L. "Why Do Wages Vary Among Employers?" *Economic Review* (FRB-Cleveland), vol. 24, no. 1, 1988 Q1.page 30.

that one would need **extremely low levels of search frictions** for compensating differentials to arise.³⁸ [Emphasis added.]

46. Classical, perfectly competitive labor market have no “search frictions”; real labor markets do. Examples of search frictions include that interviewing takes time and effort, offers can be hard to specify and understand fully, and firms and workers cannot relocate without cost. Many of these “frictions” constrain employers’ and workers’ options. As discussed above, one defining characteristic of minor league baseball is that players cannot search for work with other Clubs, so search frictions are extremely high. Because Clubs do not bid against each other, players and Clubs cannot trade-off between wages and non-wage benefits in competing offers. Furthermore, between baseball and the rest of the labor market, players would not have lower frictions than any other worker—where we see no wage-amenity trade-offs either. Thus, minor league players’ compensation is highly unlikely to reflect compensating differentials for fringe benefits or other amenities.

47. In sum, Dr. Martin fails to make the case that the training and fringe benefits received by the minor league players are very unusual and should translate into lower wages.

iii. Dr. Martin Does Not Adequately Compare the Benefits Obtained by the Minor Leaguers to the Benefits Obtained by MLB and Its Member Clubs.

48. Dr. Martin implies that the players are primary beneficiaries of their work because they choose to do so.³⁹ In a competitive market, this may be a valid inference. In that situation, workers choose jobs where they are most productive because they are rewarded according to their productivity. This inference is not valid in a monopsonistic market.

49. To see how Clubs can capture extra benefit from their workers, consider a hypothetical minor leaguer whose talents are perfectly suited to baseball but useless elsewhere. In a competitive baseball market, the player’s pay would reflect his productivity in baseball. In a monopsonistic market, he will get only his opportunity cost, that is, what he could earn elsewhere, *outside of baseball*. The Club needs to pay only a bit more than what he could earn outside of baseball (almost nothing, in this case)—regardless of his productivity in baseball. The Club then claims the financial benefit of the difference between his productivity and his pay. By Dr. Martin’s metrics, this player would be judged to receive “substantial” pay because his pay is indeed higher than his opportunity cost—which is constrained to be zero by the lack of competition between baseball Clubs.

50. Of course, most players are not useless elsewhere, but the logic holds as well for any player whose productivity in baseball is higher than on other jobs. Thus, neither the players’

³⁸ Bonhomme, Stephane and Gregory Jolivet, “The pervasive absence of compensating differentials,” *Journal of Applied Econometrics*, 2009, 24 (5), 763–795.

³⁹ See Dr. Martin’s Report, paragraph 13.

decisions to join the minor leagues, the training received there, nor low compensation received there can serve as *prima facie* evidence that the players' compensation is substantial relative to their productivity. Instead, high training and low compensation may well reflect the strength of employer power in this labor market, not low productivity. Stated another way, the fact that baseball players continue to play voluntarily for the minor leagues does not prove that they derive substantial benefits from doing so, particularly in comparison to the value they contribute, which is what they would earn in a competitive labor market.

51. Yet, this is the essence of Dr. Martin's analysis. She takes the teams' continued ability to attract minor league players as confirmatory evidence of substantial benefits. For example, she states, "each plaintiff elected to play in his minor league position because the expected benefits of doing so exceeded those available had he instead sought employment outside the minor leagues."⁴⁰

52. Another distinct issue is whether we can measure the value of minor league training to its players as Dr. Martin describes. The lack of comparable opportunities available for aspiring professional baseball players makes it difficult to price minor league training (whether physical conditioning or job training) and provides more evidence of its monoposonistic labor market. In her effort to price minor league player training in Figure 1, Dr. Martin resorts to including prices for baseball camps for children. For example, see footnote 9 about one at the University of Southern California that is "targeted toward 6-12 year olds."⁴¹ Figure 2 lists "youth camps that do not advertise that they offer the opportunity to play in front of professional scouts."⁴² These two sets of examples are recreational summer camp experiences for minors. These camps are not geared towards professional sports and their value in part is in providing care to out-of-school minors. They are clearly not relevant to the analysis of the value of minor league training.

53. Figure 3 features prospect camps that "are held at universities and offer players the chance to be seen by professional scouts."⁴³ These may be somewhat closer to minor league training in the ages and aspirations of attendees. Yet, their purpose is either recreational or to gain consideration for minor league baseball, not to *substitute* for the minor leagues in which the players are already signed to professional contracts and under the control of the Defendants. A key sign is the short duration of these camps—only 1-6 days for all but one of them—far shorter than minor league spring training of 3-4 weeks. So, again, it is not convincing that the price of these camps reflects the value of minor league training to its players.⁴⁴

⁴⁰ See Dr. Martin's Report, paragraph 47, lines 12-15.

⁴¹ See Dr. Martin's Report, paragraph 30.

⁴² See Dr. Martin's Report, paragraph 31.

⁴³ See Dr. Martin's Report, paragraphs 32-34.

⁴⁴ Indeed, Dr. Martin failed to consider the significant differences between these camps and MiLB spring training, extended spring training, instructional leagues and/or the Championship Season in any meaningful way. She relied

54. Dr. Martin also completely ignores the other side of the coin: the benefit received by MLB and its Clubs. Thus, we must examine evidence to see if minor league players' work benefits their Clubs substantially.

55. The minor league systems benefit their baseball Clubs in at least four ways.

- MiLB teams share their game revenues with MLB—the proceeds of ticket, concession, souvenir, and broadcast rights sales, etc. While the MLB Clubs are not always the owner of the MiLB team selling the tickets, the MiLB teams do have to provide a percentage of the gate revenue to MLB.⁴⁵
- Minor leaguers provide tremendous economic value to MLB Clubs by supplying players who are required to serve at the major league level at suppressed salaries.
- MLB Clubs can trade their minor league players to another team in return for something of value to MLB Clubs, such as other players or money.
- The minor leagues provide important information on players' abilities and secure the right to players' services for the major league team in the future even if they do not become major league players.

56. The latter three sources of benefit are very important, and reflect the economic realities of the relationship between the players and Defendants. It is reasonable to assume that a large part of the ultimate total value of minor leaguers to Defendants is realized after a player leaves the minor leagues to join the major leagues. When players join the major leagues, they get an approximately fifty-fold salary increase (from as little as \$10,500 per year to over \$500,000 per year).⁴⁶ However, players cannot move voluntarily and their salaries are highly constrained until they have the option to become a free agent after 6-7 years of play. During this time, a successful player can contribute strongly to the team's wins and bottom line. If they are not successful, the team can release them or return them to the minors. There is evidence that MLB

on a single camp for each state, chosen at random by her staff, for her analysis. (See Martin Depo. at p. 68-69). She did not consider how the duration and intensity of those camps compared to the Minor Leagues, nor did she consider the fact such camps are voluntary and competitive in the sense participants may choose from several camps competing for their patronage. (See Martin Depo. at p. 68-77).

⁴⁵ See Article VII, Paragraph F of the Agreement between the Office of the Commissioner of Baseball (on behalf of the Major League Baseball Clubs) and the National Association of Professional Baseball League, Inc., on behalf of its member Leagues and the member Clubs of its member Leagues. Over the course of the contract, the percentage of gate revenues going to MLB started at 5.0% in 2005 and rose to 8.0% in 2020. ESPN (see https://www.espn.com/mlb/story/_/id/29795127/why-mlb-minor-leagues-know-end-sept-30) reports that: "Currently, minor league teams pay out 8.5% of their ticket revenue -- about \$20 million total -- with 8% going to Major League Baseball and 0.5% going to MiLB."

⁴⁶ In 2021, the single-A salary increased to \$500 per week during the season, or around \$10,500 total. See Fagan, Ryan, "Even after overdue salary bump, baseball's minor leaguers still paid far below NBA, NHL counterparts," <https://www.sportingnews.com/us/mlb/news/even-after-overdue-salary-bump-baseballs-minor-leaguers-still-paid-far-below-nba-nhl-counterparts/1gpql94asy7a10uo5nvc3yp4k>.

Clubs increasingly aim to fill their rosters as much as possible with players in the “sweet spot” of high performance with constrained salaries.⁴⁷

57. To assess the productivity of minor league players, it is important to note that MLB and MLB Clubs are for-profit organizations. Surely, if there was little or no benefit to having minor league players, the owners could jointly decide to close down MiLB, or some MLB team might try to opt out of it. Thus, we can infer that minor league players provide some net benefit to their employers.

58. How much benefit they provide cannot be judged based on player compensation because Defendants have monopsony power and because the entire enterprise of professional baseball in the U.S. is quite “vertically integrated.” A fully vertically-integrated enterprise controls the production of important inputs to its production process, as well as the distribution of its products.⁴⁸ So, a vertically integrated steel company might have its own iron ore mines, shipping barges, factories, warehouses and sales agents. Similarly, MLB controls the minor leagues, negotiates with the MLB players’ union, makes the rules for major league operations, games, playoffs, etc. With this central control, they can make decisions that will benefit the whole enterprise, even at the expense of the apparent profitability of some component.⁴⁹ Thus, the balance sheet of any one minor league affiliate or the group as a whole cannot be relied upon to reveal their true contribution to the profitability of the total enterprise. For example, even if MLB Clubs receive less in gate revenue from the minor league games than the cost of minor league players’ and coaches’ salaries, the minor league system might still be highly profitable to MLB and Defendants as a whole.

59. Thus, a large part of the ultimate value of minor league play is realized when a player joins the major league Club he is committed to and contributes to the bottom line there, while earning a capped salary. This is reasonable because otherwise, there would be no rationale for MLB teams to operate this system.

⁴⁷ See Felder, Adam. “How MLB Keeps its Players’ Salaries Down,” *The Atlantic*, December 2015. <https://www.theatlantic.com/business/archive/2015/12/mlb-salaries-labor-contract-negotiations/419889/>, and Sawchik, Travis, “Nobody Wants Baseball’s 30-Something Free Agents Anymore,” *FiveThirtyEight.com*, November 8, 2018. <https://fivethirtyeight.com/features/nobody-wants-baseballs-30-something-free-agents-anymore-%F0%9F%98%9E/>.

⁴⁸ <https://www.investopedia.com/terms/v/verticalintegration.asp>.

⁴⁹ In one simple example of how companies can move expenses and profit centers around, many large companies (particularly international ones) openly engage in “transfer pricing.” They intentionally select purchase prices of inputs from their own subsidiaries in order to minimize their total tax burden. They may under- or overcharge themselves to locate the most profit possible in the state or country where it will be taxed least. <https://www.investopedia.com/terms/t/transfer-pricing.asp>.

60. One recent indication of the value of a minor league player comes from Steven Cohen, owner of the New York Mets. He asserts that baseball draft picks are worth up to five times their slot value to Clubs.⁵⁰

Table 4: Tweet about the value of minor league players from Steven A. Cohen



61. This assertion is likely based on recently developed measures of the value of minor league players to their MLB affiliates. These estimates are part of the field of sports analytics that is often called “sabermetrics.” The minor league valuation estimates vary in methodology, sample, and scope of value considered. Yet, they all agree that minor league players have a high return on investment for their major league Clubs.

62. Player evaluations estimate the financial return that minor league players provide to their major league team. A key statistic used in baseball valuations is a player’s “Wins Above Replacement” (WAR). This metric measures how much better (or worse) a player is against a typical average player.⁵¹ Specifically, it rises with the number of additional games a team would win (or lose) per season with this player in the game instead of the average professional player on his team. A negative number says that the player is worse than the average player. Zero or negative WAR says the player adds very little to the team. Numbers of six or higher are Most Valuable Players (MVPs). Arbitration awards to major league players can rely on WAR statistics.⁵²

⁵⁰ “Slot values” refer to limits set for MLB Clubs’ signing bonuses in the player draft. “Each choice in the first 10 rounds comes with an assigned value, with the total for a club’s selections equaling what it can spend in those rounds without incurring a penalty.” <https://www.mlb.com/news/2021-mlb-draft-bonus-slots>.

⁵¹ For detail on how WAR is calculated and its merits, see Slowinski, Piper. “What is WAR?” *FanGraphs*. February 15, 2010. <https://library.fangraphs.com/misc/war/>.

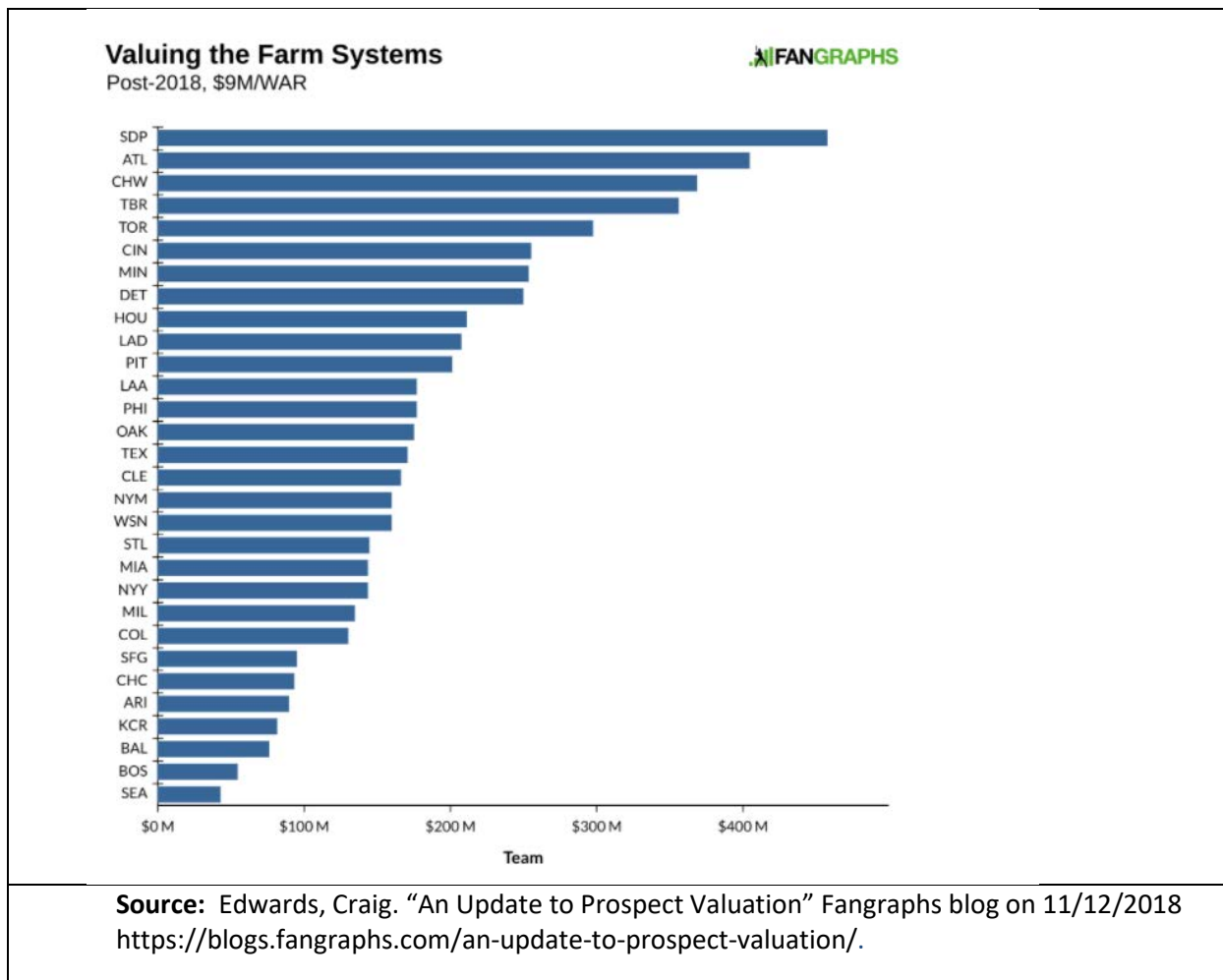
⁵² The baseball Collective Bargaining Agreement allows for the use of publicly available statistics when petitioning for an arbitration award. <https://law.tulane.edu/sites/law.tulane.edu/files/Files/TIBAC%20--%202018%20Salary%20Arbitration%20Guide.pdf>. See also <https://www.mlb.com/glossary/transactions/salary-arbitration>.

63. Analysts forecast players' prospective WARs based on their current scouting grades and other factors that influence how long they can play for the major leagues before free agency. Craig Edwards provides a credible and transparent estimate of the total valuation of the top 800 minor league players in 2018, aggregated by the team to which they belong. Edwards is a former MLB executive and scout with a degree in finance. He is now a writer and analyst for Fangraphs. He describes his valuations as follows:

What follows are the present-day values of prospects based on the study performed above. The results are presented in present-day WAR and translated to a rough dollar figure based on \$9 million as the cost of a win on the free-agent market. Keep in mind that the dollar figure [is the]...equivalent value of a prospect relative to the free-agent market. Part of the reason prospects have such tremendous value is due to the suppressed salaries permitted by the CBA [Collective Bargaining Agreement] until a player has reached six years of service time. By translating the WAR figure into a monetary value, we can compare the value of prospects with the values of major-league players and their contracts. These values likely roughly approximate what an individual player might get as a signing bonus if he were declared a free agent and teams could only provide a signing bonus instead of a long-term contract.⁵³

64. He determines that each WAR point is worth \$9 million in net present value (NPV) to a major league team. NPV represents the total average value to the major league team of recruiting a player with the indicated grade—over the 6-7 years before the player becomes a free agent. Note that these numbers adjust for any signing bonuses that the players received when they joined a minor league team and their salaries in the major leagues.

⁵³ See Craig Edwards, "An Update to Prospect Valuation" Fangraphs blog on 11/12/2018 <https://blogs.fangraphs.com/an-update-to-prospect-valuation/>.

Table 5: Estimates of the value of the Minor League System to their MLB Club, by team

65. Edwards projects that even the team with the lowest valuation, the Seattle Mariners, will net \$43 million from its current stock of minor league players. According to these estimates, the San Diego Padres' minor league players, at the other end of the spectrum, will gain \$458 million. The median team, will gain \$170 million. All told, MLB as a whole will profit by \$5.8 billion from the minor league system.

66. Another credible recent estimate of the value of minor leaguers to MLB Clubs, produced by Dan Aucoin, Research Analyst for Driveline Baseball, is entitled "What is the Value of a Prospect? An Updated Methodology."⁵⁴ This company produces analytical tools for baseball teams to help them improve management. He is transparent in his methodology and compares his results to out-of-sample actual results of trades and estimates from Craig Edwards. He

⁵⁴ The post was published on February 19, 2019. See <https://www.drivelinebaseball.com/2019/02/prospect-valuation-much-top-prospects-worth-professional-baseball-teams/>.

argues that the correct valuation of a WAR should be higher at \$10.4 million per point. With that adjustment, despite other differences in methodology, his valuations are broadly similar to Edwards. His preferred estimates combine his results with those from Edwards and produce the following table with average valuations for players grouped by their scouting rank at entry to the minor leagues. These numbers are quite high, suggesting that teams can benefit very substantially from players at the top grades, and even at the lower grades.

Table 6: Average projected value of a MiLB player to his MLB affiliate, by scouting grade

Hybrid Values	
Grade	NPV at \$10.4M/WAR
70	\$ 103,672,920.00
65	\$ 79,211,368.80
60	\$ 61,027,032.86
55	\$ 42,360,640.30
50	\$ 25,889,287.12
45	\$ 10,530,032.47
40	\$ 4,638,062.75
35	\$ 1,996,428.13

Source: Aucoin, Dan. "What is the Value of a Prospect? An Updated Methodology." <https://www.drivelinebaseball.com/2019/02/prospect-valuation-much-top-prospects-worth-professional-baseball-teams/>.

67. Moreover, these studies are consistent with what economic theory predicts: MLB is using its considerable monopsonistic power over minor league players to add substantially to Defendants' profitability. There is also testimony in this case that further supports that minor leaguers provide significant value to the MLB Clubs as a result of their suppressed major league salaries.⁵⁵ Furthermore, MLB Clubs have the exclusive rights to negotiate extensions with their

⁵⁵ See Tampa Bay Rays 30(b)(6) Depo. p. 82 ("Q. Why is the minor league system important to the Rays? A. Well, it's important to – to any baseball Club in order to continue to provide talent for our major league Club. For us, specifically, it is very crucial because we are not always able to provide the best contracts for free agents on the major league level, and so we rely on minor league players ascending to the big leagues after our training is completed with them in the minor leagues."); Zachary Wilson Depo., at p. 94-96(Q. When negotiating with a Major League free agent, what does that process entail? A. It entails, most of the time, having negotiations through an agent. Q. Okay. And those negotiations would be regarding the salary amount, correct? A. Most of the negotiations would be, yes. ... So how would the process be different for a Minor Leaguer? A. A Minor Leaguer going to the Major Leagues? Q. Yes. A. Would just be -- they would be signed to a Major League contract to the

players before the player becomes a free agent, which provides them with additional market power.⁵⁶

68. The over 80% of minor league players who never become major league players also provide value to MLB and its Clubs.⁵⁷ Whether a recruit will achieve the high performance expected in the major leagues can be very difficult to assess in advance. Moreover, promoting the wrong player can be quite costly to a major league Club. The minor league system provides a large pool to select from and extensive information on players' abilities. There is also a value to these players because the minor league system could not exist or operate fully without full rosters.⁵⁸ In short, all minor leaguers have inherent value by contributing to the MLB bottom line in at least the following ways:

- Generating revenues from the games played (via ticket, concession, souvenir, and broadcast right sales);
- Providing option value (that is, a ready pool to draw from during the season) to fill out a MLB or minor league roster or to trade for a needed player from another Club; and
- Creating a high-level competitive environment in the minor leagues, with full rosters, that maximizes the probability of producing valuable MLB players.

69. Suppose, however, that some players are not productive in the minor leagues. As workers, they would still be entitled to earn the minimum wage. This is consistent with any workplace when an employee does not meet their employer's expectations. All employers take on risk each time they hire a worker. Minimum wage law does not interfere with the right of employers to fire unproductive workers. It simply says that for as long as a worker is employed,

point that they were brought up to the Major Leagues. Q. And that contract may be subject to the Major League minimum salary; could it not? A. Yes. Q. Okay. That wouldn't be negotiated through an agent? A. No. Q. Okay. And if the Minor League player that graduated to the Major Leagues wanted to -- was to play in the Major Leagues, that would be the amount of their salary? A. Yes. Q. Regardless of how well they were performing? A. Yes. Q. Regardless of how well they had performed the previous year? A. Yes.").

⁵⁶ See Wilson Depo. p. 101-02 ("Okay. And the Rockies had the right to negotiate with [Troy Tulowitzki] at that time when other teams didn't, correct? A. Yes. ...Q. Okay. Because he was under contract with the Rockies at that time? A. Yes. Q. And wouldn't that also be a benefit to the Rockies, that they were the only team that could negotiate with him? MR. GANZ: Now, what's the relevance of that question? Objection. A. Yes.").

⁵⁷ See footnote 21. Note also that some players called up to the major leagues return to the minor leagues after only a short time.

⁵⁸ See Gwynn Depo. p. 310 ("Q. What does that mean when you see that, the Q. no prospect role? A. That he is probably an organizational player that you need to fill rosters. Q. Okay. And next to that it says, This is a player you see as not having no more than A ball level value." Do you see that? A. Yeah, I see it. Q. So that means that you don't see that player as having major league value? A. Not as major league value. Correct."); Wilson Depo. p. 100 ("are Minor Leaguers that don't become Major Leaguers also valuable to the Rockies? MR. GANZ: Object to the form of the question. The witness may answer. A. Yes. Q. (BY MR. POUYA) Okay. How are they valuable? A. They can make others around them better. Q. Okay. And they can also be traded to other teams for assets? A. Yes.).

they must be paid the minimum wage. The risk of low productivity does not exempt employers from the obligation to pay the minimum wage.

70. In sum, Dr. Martin fails to account for the impact of the monopsonistic power on the labor market, overestimates the amount of training provided to players, wrongly relies on traditional employee non-wage benefits as evidence that players are “trainees,” and completely ignores any benefits received by MLB and its Clubs. The evidence indicates that minor leaguers provide considerable value to major league Clubs, which exceeds the benefits they received.

D. Dr. Martin’s Analysis Does Not Support the Assertion That Minor League Players are Creative Professionals

71. Dr. Martin’s support for the assertion that minor league players are creative professionals rests on documenting differences in performance among players and interpreting the wide dispersion as reflecting variation in their creativity. This section examines flaws in two aspects of Dr. Martin’s testimony: whether performance disparities in baseball signal differences in creativity and whether authoritative sources support classifying baseball players as creative professionals.

i. Performance Differences Between Minor Leaguers Do Not Support Application of the Creative Professionals Exemption.

72. Dr. Martin’s statement implicitly and erroneously uses the work “talent” as a synonym for creativity. Dr. Martin states her argument as follows:⁵⁹

“For plaintiffs in this matter, there is substantial empirical evidence that they both have talent and that they make individualized decisions about how to make the best use of their talents and innate abilities.”

73. Despite presenting evidence on variation in performance among minor league players, Dr. Martin’s statement does not examine whether differences in players’ creativity, in particular, drive the disparate outcomes. If her assumption that performance differences are due to creativity is true for baseball players, then it should apply to all professional athletes. All professional athletes have variation in performance. That, after all, is why teams or individuals win or lose athletic competitions and championships. If such variation indicates a need for creativity to excel in playing baseball, there is no *a priori* reason to think that creativity would not help professionals to excel in other sports.

74. Dr. Martin fails to examine whether baseball players and (by logical extension) other professional athletes need creativity that is similar to what is required in the recognized

⁵⁹ Last sentence of paragraph 50 of Dr. Martin’s report.

creative occupations mentioned below. This is testable. To evaluate this proposition, we can examine official, authoritative information on occupational attributes and requirements.

75. Professional baseball players are talented and their performance varies, but there are many types of talent other than creativity. And, many other workers can use creativity to improve performance. Thus, under Dr. Martin's usage, numerous skilled worker could be called a creative professional, including welders, carpenters, or bakers. Hence, performance dispersion among baseball players likely provides no information about the need for creativity in baseball.

76. Therefore, the key question is whether professional success in baseball depends strongly enough on creative ability that baseball players belong to the class of creative professionals. Authoritative official analysis of the abilities required by professional athletes indicates that they do not align with the recognized list of creative professionals supplied in U.S. Department of Labor regulations.

77. To begin with, U.S. Department of Labor regulations on creative professionals do not list professional athletes as a recognized field for the exemption; nor do the criteria provided support such inclusion. As pertains to minimum wage enforcement, they provide regulatory language defining creative professionals.⁶⁰ A summary of the guidance includes the following:

1. Criteria for creative professionals:
 - Performance of nonroutine work requiring invention, imagination, originality or talent; and
 - Working in a recognized field of artistic or creative endeavor (such as music, writing, acting and the graphic arts)
2. Cited examples of creative professionals:
 - Actors
 - Musicians and singers
 - Composers and conductors
 - Painters who have broad artistic license
 - Cartoonists who have broad artistic license
 - Writers and journalists who choose their own subjects
3. Creative professionals are typically self-employed.

78. Professional baseball is not listed in the second criterion as a recognized field of artistic or creative endeavor. Nor is any other form of professional athletics. Nor are professional

⁶⁰ Cornell Law School Legal Information Institute. Electronic Code of Federal Regulations (e-CFR), Title 29 - Labor, Subtitle B - Regulations Relating to Labor, CHAPTER V - WAGE AND HOUR DIVISION, DEPARTMENT OF LABOR, SUBCHAPTER A - REGULATIONS, PART 541 - DEFINING AND DELIMITING THE EXEMPTIONS FOR EXECUTIVE, ADMINISTRATIVE, PROFESSIONAL, COMPUTER AND OUTSIDE SALES EMPLOYEES. Subpart D - Professional Employees, § 541.302 Creative professionals. <https://www.law.cornell.edu/cfr/text/29/541.302>.

athletes and their work included in the regulatory list of artistic or creative professions. In addition, minor league players are not self-employed. Further, we can test whether baseball players perform “nonroutine work requiring invention, imagination, originality or talent” in an “artistic or creative endeavor” by examining federal labor statistics.

79. The federal labor statistics and workforce development experts who classify and analyze occupations also exclude professional athletes from the ranks of artistic or creative professions. One product of this federal expertise is the 2018 Standard Occupational Classification (SOC) system, a federal statistical standard used by federal agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 867 detailed occupations according to their occupational definition. Detailed SOC occupations group together jobs that have similar duties, and in some cases skills, education, and/or training.⁶¹

80. The SOC is designed for statistical purposes. In addition, the SOC is used for many federal non-statistical purposes (*e.g.*, for administrative, regulatory, or taxation functions), and by state and local government agencies, businesses, and private users. The Standard Occupational Classification Policy Committee (SOCPC, a federal technical working group with representatives of agencies that use the classifications) proposes updates to the SOC system. The federal Office of Management and Budget enacts them through a Statistical Directive.⁶²

81. Professional athletes have their own detailed SOC code: 27-2021—Athletes and Sports Competitors. Baseball players certainly belong to this category. Being grouped with other professional athletes reflects the judgement of the experts in the SOCPC that professional athletes are similar to each other in many key respects, especially in duties. The description for the code is simple:

“Compete in athletic events. Illustrative examples: *Professional Football Player, Professional Jockey, Professional Race Car Driver.*”

82. The SOC places the detailed occupation of professional athletes within the broad occupation of Athletes, Coaches, Umpires, and Related Workers (SOC 27-2020). Within the broad group, they are distinguished from Coaches and Scouts (SOC 27-2022) and Referees, Umpires and Other Sports Officials (SOC 27-2023).

83. The SOC does not include professional athletes in any of the occupation groups that are commonly considered creative and who work in a recognized field of artistic and creative

⁶¹ The SOC Manual is posted at https://www.bls.gov/soc/2018/soc_2018_manual.pdf. For more information about the SOC system and its revision process, see [https://www.bls.gov/soc/_OMB Statistical Directive #10--FRN](https://www.bls.gov/soc/_OMB%20Statistical%20Directive%20#10--FRN) announced adoption of the 2018 SOC: <https://www.govinfo.gov/content/pkg/FR-2017-11-28/pdf/2017-25622.pdf>.

⁶² For a complete description of process of revising occupational classifications, see https://www.bls.gov/soc/revising_the_standard_occupational_classification_2018.pdf.

endeavor. For example, professional athletes are not included in seven creative professions that are listed in or adjacent to the ones listed in the regulatory guidance:⁶³

- Fine Artists, Including Painters, Sculptors, and Illustrators (SOC 27-1013): Create original artwork using any of a wide variety of media and techniques.
- Special effects artists and animators (SOC 27-1014): Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.
- Actors (SOC 27-2011): Play parts in stage, television, radio, video, or film productions, or other settings for entertainment, information, or instruction. Interpret serious or comic role by speech, gesture, and body movement to entertain or inform audience. May dance and sing.
- Producers and directors (SOC 27-2012): Produce or direct stage, television, radio, video, or film productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.
- Dancers (SOC 27-2031): Perform dances. May perform on stage, for broadcasting, or for video recording.
- Musicians and singers (SOC 27-2042): Play one or more musical instruments or sing. May perform on stage, for broadcasting, or for sound or video recording.
- Poets, lyricists and creative writers (SOC 27-3043.05): Write original poems, lyrics, or fiction or nonfiction prose, such as short stories, novels, biographies, articles, descriptive or critical analyses, and essays. Excludes “News Analysts, Reporters, and Journalists” (27-3023), “Public Relations Specialists” (27-3031), and “Technical Writers” (27-3042).

84. Another relevant test uses the BLS Occupational Outlook Handbook (OOH).⁶⁴ The OOH is the most highly consulted federal resource on occupational attributes. The BLS occupational analysts who compile the OOH analyze BLS data sources and consult professional associations, industry associations, trade unions, human resource specialists, and a wide variety of other sources. The OOH describes key attributes of occupations (training needs, attributes, wages, employment levels, turnover rates, etc.) and forecasts job growth. The OOH lists the following qualities (in alphabetical order) as important for professional athletes:⁶⁵

⁶³ These occupations parallel and expand on the occupations listed in the regulatory guidance. All definitions listed except SOC 27-3043.5 are reproduced from the SOC manual (<https://www.bls.gov/soc/2018/#classification>). The description for Poets, lyricists and creative writers is condensed from the SOC manual and the O*NET description on <https://www.onetonline.org/link/summary/27-3043.05>.

⁶⁴ See <https://www.bls.gov/ooh/>.

⁶⁵ Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Athletes and Sports Competitors, at <https://www.bls.gov/ooh/entertainment-and-sports/athletes-and-sports-competitors.htm> (visited July 27, 2021).

Athleticism. Nearly all athletes and sports competitors must possess superior athletic ability to be able to compete successfully against opponents.

Concentration. Athletes and sports competitors must be extremely focused when competing and must block out distractions from fans and opponents. The difference between winning and losing can sometimes be a result of a momentary lapse in concentration.

Decision making skills. Athletes and sports competitors often must make split-second decisions. Quarterbacks, for example, usually have only seconds to decide whether to pass the football or not.

Dedication. Athletes and sports competitors must practice regularly to develop their skills and improve or maintain their physical conditioning. It often takes years to become successful, so athletes must be dedicated to their sport.

Hand-eye coordination. In many sports, including tennis and baseball, the need to gauge and strike a fast-moving ball is highly dependent on the athlete's hand-eye coordination.

Stamina. Endurance can benefit athletes and sports competitors, particularly those who participate in long-lasting sports competitions, such as marathons.

Teamwork. Because many athletes compete in a team sport, such as hockey or soccer, the ability to work with teammates as a cohesive unit is important for success.

Many professional athletes are also required to pass drug tests.

85. Note that artistry or creativity is not listed as a key quality for professional athletes. Many athletes may at times be creative, but this not a primary quality needed in the profession. OOH lists four occupations as the most similar to professional athletes: Coaches and scouts; Fitness trainers and instructors; Recreation workers; and Umpires, referees, and other sports officials. Creativity is not listed by OOH as an important quality for any of these occupations either.

86. By contrast, here are the qualities listed (in alphabetical order) in the OOH for the seven artistic or creative occupations listed before, with mentions of creativity in bold:

- Fine Artists, Including Painters, Sculptors, and Illustrators (SOC 27-1013): Artistic Ability, Business skills, **Creativity**, Customer service skills, Dexterity, Interpersonal skills
- Special effects artists and animators (SOC 27-1014): Artistic talent, **Creativity**, Communication skills, Computer skills, Time-management skills

- Actors (SOC 27-2011): **Creativity**, Memorization skills, Persistence, Physical stamina, Reading skills, Speaking skills
- Producers and directors (SOC 27-2012): Communication skills, **Creativity**, Leadership skills, Time-management skills
- Dancers (SOC 27-2031): Athleticism, **Creativity**, Leadership skills, Persistence, Physical stamina, Teamwork
- Musicians and singers (SOC 27-2042): Dedication, Discipline, Interpersonal skills, Musical talent, Physical stamina, Promotional skills
- Writers and authors (SOC 27-3043): Adaptability, **Creativity**, Critical-thinking skills, Determination, Persuasion, Social perceptiveness, Writing skills⁶⁶

87. All the lists include creativity, except for musicians, although musical talent could be seen as a form of creativity. Professional athletes are not mentioned as a similar profession for any of these occupations. Parenthetically, I note that creativity is also not listed as a key quality for welders, carpenters, electricians, plumbers, or bakers. These observations help underline the point that creativity can be *helpful* in many professions, but that is not the same as creativity being a *primary quality* for an occupation.

88. Another important national source of occupational information, the U.S. Department of Labor's Occupational Information Network (O*NET), shows that ability requirements for professional athletes are very different from those for the creative occupations listed above. The O*NET database contains hundreds of standardized and occupation-specific descriptors on 1,016 occupations covering the entire U.S. economy.⁶⁷ The database is frequently updated with input from occupational analysts and a broad range of workers in each occupation. O*NET information is used by millions of individuals every year.⁶⁸

89. I performed several simple tests on the O*NET database:

- I searched the O*NET occupation reports for the words "creative" or "creativity." The search yields 272 occupations out of 1,016 occupations. This list does not include professional athletes. A search for "originality" yields 86 occupations, none of which are professional athletes.
- O*NET provides scores and ranks for 52 abilities for 1,016 occupations. I examined the abilities that O*NET reports as important for professional athletes. I reproduce the list of top ten abilities below:

⁶⁶ OOH reports cover the whole detailed SOC code for writers and authors, in contrast to the narrower distinctions for the most creative writers available in O*NET data. Note that the OOH lists creativity as a key quality for writers even though it uses a broader definition for the occupation.

⁶⁷ Although O*NET is based on the SOC system's 867 detailed occupations, they divide a number of detailed SOC occupations more finely in their database and add some military occupations.

⁶⁸ See <https://www.onetcenter.org/overview.html>.

Table 7: O*NET List of Top Ten Abilities Required for Athletes and Sports Competitors (SOC 27-2021)

Importance		Ability	Ability Description
Rank	Score		
1	75	Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
2	72	Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
3	72	Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
4	72	Static Strength	The ability to exert maximum muscle force to lift, push, pull, or carry objects.
5	72	Stamina	The ability to exert yourself physically over long periods of time without getting winded or out of breath.
6	66	Explosive Strength	The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object.
7	66	Dynamic Strength	The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
8	66	Speech Clarity	The ability to speak clearly so others can understand you.
9	63	Gross Body Coordination	The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
10	63	Near Vision	The ability to see details at close range (within a few feet of the observer).

Source: Department of Labor, Employment and Training Administration, O*NET.

Notes:

- O*NET defines an **ability** as “an enduring talent that can help a person do a job.”
- “Rank” is out of 52 listed abilities, with 1 as the most important ability for that occupation.
- “Score” is the relative importance of an ability to the work of this occupation, on a scale from 0 to 100, as determined by a panel of occupational analysts.

None of these important abilities for professional athletes is clearly associated with artistry or creativity. Two creativity-related abilities on O*NET’s list of 52 abilities are “originality” and “fluency of ideas” (that is, the ability to come up with many ideas to

address topics). For professional athletes, neither of those abilities appears until the middle of the list (25 and 26 out of 52, and have both have the modest score of 47 (on a scale from 1 to 100).

- I identified the ten occupations with the highest importance attached to originality and fluency of ideas. Professional athletes do not appear on either top-10 list (see table below).

Table 9: Top 10 Occupations for the Importance of Two Creative Abilities

	Originality		Fluency of ideas	
	Occupation	Importance score	Occupation	Importance score
1	Fine Artists, Including Painters, Sculptors, and Illustrators	85	Poets, Lyricists and Creative Writers	81
2	Poets, Lyricists and Creative Writers	81	Physicists	78
3	Physicists	78	Set and Exhibit Designers	78
4	Art Directors	78	Art Directors	78
5	Interior Designers	78	Architects, Except Landscape and Naval	75
6	Fashion Designers	75	Fine Artists, Including Painters, Sculptors, and Illustrators	75
7	Architects, Except Landscape and Naval	75	Training and Development Managers	75
8	Choreographers	75	Choreographers	75
9	Video Game Designers	75	Interior Designers	75
10	Graphic Designers	75	Market Research Analysts and Marketing Specialists	75
<p>Source: Department of Labor, Employment and Training Administration, O*NET.</p> <p>Notes:</p> <ul style="list-style-type: none"> • O*NET defines an ability as “an enduring talent that can help a person do a job.” • Importance score is the relative importance of an ability to the work of this occupation, on a scale from 0 to 100, as determined by a panel of occupational analysts. • Originality: The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. • Fluency of ideas: The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity). 				

- Finally, I investigated whether professional athletes were unusual in having a need for originality and fluency of ideas. O*NET reports that every one of the 1,016 occupations has at least some need for originality and fluency of ideas.

90. These very simple tests show that considering talent as synonymous with creativity for professional athletes does not align with regulatory guidance or official data on occupational requirements and characteristics. Professional athletes have notably less need for creative abilities than seven occupations commonly understood to be creative professions, and all occupations require at least some creativity. Many other occupations have higher need for creative abilities than do athletes. Yet, many of those, like professional athletes, would likely not qualify as creative professions because they do not work in recognized fields of artistic or creative endeavor. This conclusion is founded on extensive research by government agencies to produce information on occupations that is widely used for statistical and programmatic purposes in the public and private sectors.



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Education

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Employment

Cornell University-Industrial and Labor Relations School Senior Economic Advisor (2017-present).

Upjohn Institute for Employment Research Research Fellow (2018-present)

U.S. Bureau of Labor Statistics Commissioner (2013-2017)

The Federal Reserve Bank of New York

- Vice President, Regional Analysis (2010-2013). Editor of *Liberty Street Economics Blog*; editor of *Current Issues in Economics and Finance*; regional and labor research.
- Vice President and Director of Regional Affairs, Communications Group (2006-2010). Set and led regional strategy, including economic education; led regional and Federal Reserve response to foreclosure crisis.
- Assistant Vice President, Microeconomic and Regional Studies (2000-2006); Head of Domestic Research (1997-1999); Head of International Research (1994-1997).

The Bank for International Settlements, Basel, Switzerland Visiting Economist (1999-2000).

Barnard College at Columbia University Visiting Asst. Professor of Economics (1993-1994).

The Federal Reserve Bank of Cleveland Economic Advisor (1991-1993); Economist (1986-1991).

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Working Papers

“Modernizing Measurement of Productivity with Nonstandard Data: Opportunities, Challenges and Progress,” (with Michael W. Horrigan and Christopher Kurz), under review for Brookings Institution volume on productivity measurement, November 2020.

“Disclosure Avoidance and the 2020 Census: What Do Researchers Need to Know?” (with Daniel L. Goroff), under review by the Harvard Data Science Review, August 2020.

“Searching for STARS: Work Experience as a Job Market Signal for Workers Without Bachelor's Degrees,” (with Peter Q. Blair, Tomas G. Castagnino, Papia Debroy, Byron Auguste, Shad Ahmed, Fernando García Díaz and Cristian Bonavida), National Bureau of Economic Research Working Paper 26844, March 2020. <http://www.nber.org/papers/w26844>.

“The Interaction of Labor Markets and Inflation: Micro Evidence from the International Wage Flexibility Project” (with William Dickens, Lorenz Goette, Steinar Holden, Julian Messina, Mark E. Schweitzer, Jarkko Turunen and Melanie Ward), unpublished paper, 2005.

“Was the 2001 Recession Different in the Labor Market?” (with Simon Potter, Aysgul Sahin and Rebecca Sela), unpublished paper, 2005.

“Do Rising Returns to Skills Affect Employer Wage Structures?” (with David I. Levine), Federal Reserve Bank of New York Research Paper, no. 9819, July 1998. Revised March 2002.

“The Effects of Inflation on Wage Adjustments in Firm-Level Data: Grease or Sand?” (with Mark E. Schweitzer) Federal Reserve Bank of New York Staff Report, no. 9, January 1996. Revised June 2000.

“Rising Inequality in a Salary Survey: Another Piece of the Puzzle,” Federal Reserve Bank of Cleveland Working Paper 9121, December 1991.

“Do Wage Differences Among Employers Last?” Federal Reserve Bank of Cleveland Working Paper, no. 8906, June 1989 (revised Feb. 1991).

“White-Collar Employment and Unemployment After the 1990-91 Recession” (with Donald Williams).

Other Professional Positions

Economic analyst in study of the Minnesota Work Equity Project, Abt Associates, Inc., Cambridge, MA (1978-1980).

Economic analyst in study of the National Supported Work Experiment, Mathematica Policy Research, Princeton, NJ (1977-1978).

Contract negotiator and steward, Memorial Union Labor Organization, Madison, WI (1976).

Teaching Experience

Barnard College Labor Economics; Intermediate Microeconomics (with calculus and without); Introduction to Microeconomics; Senior Thesis Advisor

Harvard University Labor Economics Senior Honors Thesis Advisor; Statistical Methods for Economists (undergraduate), teaching fellow; Trade Unions, Collective Bargaining, and Public Policy, teaching fellow, course development; Principles of Economics (micro, macro), lecturer.

Referee for Journals and Granting Agencies

American Economic Review

Industrial Relations

National Science Foundation

Economic Inquiry

Journal of Labor Economics

Industrial and Labor Relations Review

Sloan Foundation

Quarterly Journal of Economics

Journal of Human Resources

Economic Development Quarterly

European Economic Review

Review of Economics and Statistics

Russell Sage Foundation

Business Economics

Honors and Activities

Member, Board of Advisors, Harvard Data Science Review (2021-present).
 Fellow of the American Statistical Association, 2020.
 Member, Committee on National Statistics, National Academy of Sciences, Engineering and Medicine (2020-present).
 President-elect of Committee on Business and Economics, American Statistical Association (2020).
 Member, Federal Economic Statistics Advisory Council (2019-present).
 Member, American Economic Association Committee on Economic Statistics (2019-present).
 Chair of STARS Insights Advisory Committee, Opportunity@Work (2019-present).
 Founding Co-editor, Harvard Data Science Review (2018-2021).
 Co-Principal Investigator (with Harry Holzer) on Russell Sage Foundation Grant for project on “Improving Employment and Earnings in Twenty-First Century Labor Markets,” Grant 99-18-03. (June 1, 2018 to December 31, 2019).
 Chair, Friends of BLS (2017-present).
 Labor Market Statistics Consultant, World Bank (Saudi Arabia, 2020 and Malaysia, 2018).
 Award recipient, Labor and Employment Relations Association Susan C. Eaton Outstanding Scholar-Practitioner (2017).
 Research Fellow, Institute for the Study of Labor (IZA) (2005-2013).
 Member, U.S. Bureau of Labor Statistics Data Users Advisory Committee (2009-2012).
 Chair, Board of Directors, New York Census Research Data Center (2005-2006, 2011-2013).
 Member, U.S. 2010 Census Advisory Committee (2009-2011).
 American Economic Association Representative, U.S. Census Advisory Committee of Professional Associations (2003-2009).
 Affiliate, Sloan Industry Centers, Alfred P. Sloan Foundation (2002-2009).
 Co-Principal Investigator of the International Wage Flexibility Project, (2000-2008).
 Editor, Federal Reserve Bank of New York Economic Policy Review, (2001-2006).
 Co-organizer, “Urban Dynamics in New York City” Conference at the Federal Reserve Bank of New York, April 2005.
 Co-organizer, “Labor Market Developments in the United States and Canada since 2000,” Conference at the Canadian Consulate General in New York, December 2004.
 Co-Principal Investigator for NSF Grant to establish the New York Research Data Center (award letter July 2003). Lead organizer of effort (2002-2005).
 E-Business Coordinator, Research Department, Federal Reserve Bank of New York, (2001-2005).
 Editorial Board, Federal Reserve Bank of New York Economic Policy Review, (2000-2001).
 Co-organized “Unequal Incomes, Unequal Outcomes? Economic Inequality and Measures of Well-Being” Conference at the Federal Reserve Bank of New York, May 1999.
 Board of Reviewers, Industrial Relations: A Journal of Economics and Society, (1991-2013).
 Editorial Board, Federal Reserve Bank of Cleveland Economic Review, (1991-93).
 Co-organizer, “The Changing Structure of Wages” Conference at the Federal Reserve Bank of Cleveland, Nov. 1989.
 Social Sciences Research Council Dissertation Fellowship in Employment and Training, 1984.

Foreign Language: Spanish

ATTACHMENT B

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Case Materials

Deposition of Denise M. Martin, PH.D. (September 9, 2021)

Deposition of Tampa Bay Rays Baseball, Ltd. (June 23, 2021)

Deposition of Zachary W. Wilson (January 21, 2016)

Deposition of Christopher Gwynn (October 21, 2015)

Expert Report of Denise M. Martin, PH.D. (August 16, 2021)

MLB0008914

The Second Consolidated Amended Complaint (including exhibits, i.e., the Major League Rules and Minor League Uniform Player Contract)